

It is applicable to people of today owing to the fact that we too, are constantly erring and turning away from God; we, too, need correction and 'severe letters' before we realise His goodness and never-failing love.

3. St. Paul with Mark as his companion set out on his journey in Macedonia and Greece. It was during this the travels of the Apostle at this time that he came to Ephesus and delivered his historic speech to the Elders there.

In it he meets their arguments with others as concerning and discusses all ~~these~~^{the} points raised.

He says that he once persecuted the Christians, hated the Lord, walked evilly and did wrong. Then, one day on the road to Damascus he experienced a marvellous revelation. He fell on his face as one struck dead while a great light shone round about him. Then a voice came ~~For~~ 'Paul, Saul, why persecutest thou Me?' and he continues with his answer and the further words of the Lord.

Blind, he was led ~~to~~ ~~on~~ on. He describes the receiving of his sight at the hands of Ananias and his commission and subsequent ~~in~~ spreading of the knowledge of God.

Once a persecutor of the faith, he now explains his altered views, and ^{on} insists his wholehearted intention to work out his purpose.

4. The Great Controversy in Solomon's Porch.

Picture the scene. A crowd of listeners, some curious, some malignant, others genuinely interested, surging into hearing of the ~~speaker~~^{speaker}. There is a little hush, while the low murmur of voices subsides and the people settle down in silence. Somewhat aloof from the crowd ~~stand~~^{are} the high priests and doctors of the law scornfully waiting to hear this new speaker. A few Roman soldiers gather in the doorway.

The sun catches their breastplates and helmets and is reflected ^{on the face} of a tall man who has risen quietly and now stands looking ~~quietly~~ at the sea of upturned faces before him. Then he speaks.

he pauses... there is an uproar of shouts and angry voices, which only subsides as one of the high priests begins to argue with the speaker who watches him, a little gravely and silently.

He replies; once more there is an outcry, and the soldiers step forward to disperse the crowd and establish peace..

St Paul speaks again; argument to argument, speech to speech, he wrestles on, until.... 'Away with him! Away with him!' and the crowd surge out, the soldiers pushing their way through the mob and the ^{teacher}~~speaker~~ ceases to speak.

	Subject.	Ex. of subj.	Pred.	Ex. of Pred.	Oby.	Ex. of Oby.
4 th sentence	crickets	hedge	sing			
5 th sentence	The redbreast	whistle	whistles	with treble soft.	a garden	from
					croft	
6 th sentence	swallows	gathering (and)	twitter		skies	in the.

Words to be parsed: in, wailful, borne aloft, sinking, dies, loud, now.

in	Preposition governing 'choir', objective case.
wailful	Adjective of quality, qualifying 'choir'.
borne aloft	Intransitive verb, indicative mood, present tense, passive voice, agreeing with the Nominative 'gnats'.
sinking	Transitive verb, indic. mood, present tense, active voice, agreeing with 'gnats'.
dies.	^{Transitive} Intransitive verb, governing 'wind' of Obj. case.
loud	^{verb} Adjective of quality, qualifying 'bleat'.
now	Preposition Adjective of time.

itself. Such a book is 'Laverne' by George Borrow. One wants to follow it further.

Then for the childish style.

'So, after many a sad reproach,
They got into a hackney coach,
And trotted down the street,
I saw them go, one horse was blind,
The tails of both hung down behind,
Their shoes were on their feet.'

Rejected Addresses.

And one cannot wonder at its having been rejected! The remedy for this is surely a refusal to descend to anything lower than the commonplace — never deigning to apply to childishness to describe a scene.

The two last examples are, ^{firstly,} the unpleasant or Disgusting style which Shakespeare will furnish in ^{passages from} Hamlet and Macbeth — The eye turns with loathing from the page and one at once realizes the remedy for this — To describe vividly it is not necessary to be coarse.

Then, lastly, there is the High flown style closely allied to the first mentioned example — (the Flowery style.)

Examples may be found in sentimental love songs and the like where it seems essential to rack the brain for some metaphor more extraordinary than the last to adequately describe some simple object.

Sooner, "A primrose by the river's brim,
A yellow primrose was to him,
Was this, and nothing more."

than elaborate ravings over the same flower couched in such extravagant terms as these;

'An exquisite thing — so frail, so fair
A yellow satin petal, scented rare
The true flower that a maid should wear — etc etc'

3. One sentence may be said to satisfy where an equally carefully chosen phrase does not. How is this?

'He was but a landscape painter
And a village maiden she.' satisfies whereas

'He was ~~but~~ an umbrella maker
And a parlour maid was she' is not at all pleasing. How is this?
Because a perfect synonym supplies all that is needed and an im-
perfect synonym only offends the ear and taste.

if a remark is well thought out subject.

December 13th 1921.

Literature.

Eleanor P. Hughes.

1. We now pass to a work of art that holds the eye spell bound and transfixed. It is a Turner's landscape. Gazing at the deft colouring of the quiet waters, the masterly touches that give that calm skip its undeniable charm, and the foliage of the trees one realises the painter's spirit showing itself in each spot of dexterous painting. It is in pictures such as this the individual character of the creator of it ~~shows~~ appears, and one can only contemplate and muse. Words are quite inadequate.

Let us walk a little farther through the gallery - here another subject catches the fancy and we pause before it. This is a portrait of a great man, an Emperor. Who can mistake the short, broad shouldered form, the close-cropped dark hair, ~~and~~ the ^{soul} searching eyes and the sweet firm mouth of Napoleon Bonaparte? And in this picture where every detail of personal appearance is depicted one gathers more from the canvas than from ~~it~~ a dozen pages of a history book. The painter must have loved the original of this portrait a mere indifferent, paid painter never composed that masterpiece which we turn from with regret to ~~see~~ seek other treasures.

In the next we find a complete contrast to the former two subjects. We have seen a landscape and a portrait and now we have a scene - a scene so irresistible that ~~we~~ we cannot pass by without remarking on it. 'Blind Man's Buff' is the title, our catalogues inform us. The painter is no genius - there is no marvellous handiwork in the drawing of those capering, dodging figures and the homely air of the big room but there is a marvellous vivacity and a care of little details that pleases and yet repels.

The china crocks on the shelf, the childrens ~~lil~~ limbs and the clothes of the fine London ~~the~~ ladies who stand by watching are undeniably attractive, but there is a coarser element which mars the whole. The faces of some are so truly drawn as to be too much so and the rough vigour of the men and the boisterous glee of the girls does not altogether please the taste.

Yet it is a clever sketch of a remarkable well thought out subject.

and one admires the painter's skill undoubtedly.

2. Meeting between Ravengro and Jasper Petulengro.

'Is that you, Jasper?'

'It is, brother; and what are you doing on the heath tonight, when the wind is cold and even the Romany shivers?'

'Seeking consolation, Jasper in the silence - Will you sit with me awhile?'

'Gladly, brother - have you forgotten our last meeting? ~~when we fought near the borderland of waters?~~'

'No, I have not forgotten it. Those were strange times, brother Jasper -'

'And have you remembered my counsels and the rides we had together? ~~before that fight?~~'

'No, truly - But the wind rises, brother - where are your parents now?'

'Over the seas, where they were sent, brother - I shall not see them again -'

'Shall I see you again before long, Jasper?'

'Who knows?'

4.

Work

'Work, to the average working man, means work - to the average overseer or foreman work means gain. This does not mean that the working man does not seek money or that the foreman does not know the true meaning of work but speaking as a general thing it is true.

For the greater part of everyday work it is common sense that is required not imagination and quite rightly this is so; Because should the paid labourer spend his time creating by thought instead of by the hands there would not be much progress in the world.

And speaking of progress let me mention another point which specially applies to the ^{working} men of today. Gain is what all seek and what many imagine they find. Gain is not found by striking, and speaking from a cart in some public square. This rouses love for gain but nothing else.

Rather is it found by steady work - dull work, perhaps - but work all the same. Men strike for higher wages - how is it possible to get what they want when the money is not there? It must be brought into the country by the labour of that country's subjects.

Seek work - not gain - for assuredly the ^{former} ~~first~~ will bring the latter with it - in time. "Something to do, something to love, and something to hope for."

is a wise saying, and applies to work as well as to other things.

3. The Brontë Sisters lived a curiously remote life at Hawthth Parsonage on the bleak Yorkshire moors. Their father, their aunt, (who died before they were really grown up,) and the wreck that their brother became constituted the household. They used to get up and help with the housework - (they had only one old servant and a young girl) and arrange the breakfast - and then, at this meal they would discuss politics of the day - (Charlotte would be sure to support her beloved Duke of Wellington!) and later go out for a walk on the moors or ~~write~~ ^{read}. In the evenings was their favourite time for writing their stories when ^{sometimes} one would read her manuscript aloud while the sisters criticised it.

A quiet, lonely life, but the sisters were happy in it and would not have exchanged their cold northern home for the sunny southern village of 'Helstone' so vividly pictured in 'North and South'.

Here there was no icy wind, no bleak moors - Deep wooded lanes and lush meadows, fine woods and running streams delighted the eye. The people of the place were calm, contented; a trifle slow perhaps, but none the less charming to Margaret Hale who could not bear to leave it for Milton the great manufacturing town in Lancashire among the cotton mills.

What a difference! The ceaseless crash of machinery and smell of smoke contrasted with that south country village - the hurrying surly people whose lives were bound up in the cotton bolls and the whirr of wheels and cranks, side by side with

'Men and women with quiet eyes... and
little children, lovelier than a dream.'

What a difference!

Life in the one place ran in the other walked - while in that grim Northern home of the Brontë sisters it crept; waiting watching to midway between the two.

December 13th 1921.

History.

Eleanor P. Hughes.

1. The British Empire in the 19th Century.

It is perhaps best to consider this subject after the year 1815 when the Congress of Vienna met. In 1814, on the field of Waterloo, England both learnt and taught some unforgettable lessons. From henceforth she was a formidable power to contend with, a fact of which Europe was uncomfortably aware. Had she not put to rout the mighty Emperor Napoleon? Vanquished the hitherto unconquered?

At home things were naturally unsettled though the war-sick country was tired out and ready for a long rest. So it was that England found time for meditation and thought for her colonies overseas.

Great thinkers arose, and a very little study suffices to convince the reader how much we now owe to men of the Victorian Era.

Nor were their energies confined to the mother country. Everywhere improvements were found and it was natural to wish that the colonies might receive the advantages we already possessed.

Looking back from today when the Great War has passed us and another century is well on its way one sees the smouldering ashes under it all, the dry tinder so perilously near the flame and one realises the unrest, the petty quarrels and national differences among the nations of Europe all pointed to the inevitable and that must come sometime, though the 19th century did not see its advent.

Yet, in spite of all this the British Empire went on its way, steadily, slowly, - but surely. It was not a rapid progress by conquest, invasion, ~~and~~ or bullying and worrying smaller kingdoms. But it was a quiet growth in a right direction - a watchful course, and ^{one} carried out by clever brains. So the 19th century saw a might nation pursue its ^{right-minded} history, historic path in the world - would that the twentieth century might have the same said of it! It is to the England of today we look to for the answer.

3. It is possible to trace out the British claims to ~~Egypt~~ Egypt from the Battle of the Nile, and as one reads of the occupation of that country from that day to this through the histories of such men as Gordon,

and Kitchener one realises the immense importance of our hold on Egypt and the Egyptian peoples.

I suppose one might say that the cause that led to the British occupation of Egypt was originally brought about by the Napoleonic Wars, for it was from the date of the Battle of the Nile we obtained our first footing in the land. Since then we have never been without a square mile of the country which we might definitely call our own. And when the Arabs besieged that hero at Kairoum and witnessed the courage with which an Englishman faced death they ~~never~~ saw, though they killed him before they did so, how British Occupation was inevitable and bowed before the yoke.

Such minds as Kitchener's kept the reins held tightly and yet without that sense of oppression ^{so often experienced} ~~felt~~ by a country under subjection.

So our occupation of Egypt really dated from early in the Nineteenth century though it was not until nearer its end that English rule became law there.

2. The Dual Monarchy, as it was called consisted of two separate and historical houses each having a claim to the Austrian ~~thron~~ throne, and therefore ^{each} might be said to rule equally.

It was shattered in 1914 when, on July 23rd the Grand Duke Franz Ferdinand and his consort the Duchess of Hohenburg were murdered by two Bosnian Serbs. He was the legitimate heir to the Dual Monarchy and every nation piled the old Emperor ^{Francis} ~~Francis~~ Joseph now left alone; But it was a perfectly unwarrantable act of Austria's to wreak her ~~own~~ vengeance on the poor little state of Serbia as she did do five days later.

The war saw the death of the old man and thus the Dual Monarchy was shattered.

December 14th 1921.

Economics.

Eleanor P. Hughes.

VI and V. 3.

Three scenes from my boyhood.

(a) Our drawing room where I passed a good many evening hours looked out on to the garden. It was a pleasant apartment ~~where~~ with which I associate happy memories.

I give below a sketch outline of a typical evening at home in my boyhood days.

My father seated by the round central table and with the lamp placed conveniently near his elbow, read aloud to my mother and me. This reading aloud is always connected with that room in my mind for it was as usual as it was a delightful feature of the hours spent in it.

My mother sat listening, perhaps sewing, or merely watching my father's face as he read some fine passage.

And I, ~~so~~ in a little chair, a ^{low} ~~small~~ table before me, drank in the learning or amused myself with my own childish pursuits from the window recess.

Such is a brief outline of an evening at home.

(b) When travelling about my father was wont to hire a coach and we thus covered a considerable number of miles each day. This 'old family coach' as it may well be called, deserves notice and I would put before my reader an impression of its appearance.

It was very large and probably having originally been the property of some wealthy man, still carried his coat of arms on the door panels. Now it had descended to a coach owner who let out the interesting relic on hire.

Inside there was ample room for a family consisting of more members than ours did. My parents sat facing the horses on a broad cushioned seat and I had a little box seat before them from which I used to imagine I was driving the steeds myself.

There were curtains to the windows which were so placed as to afford a generous view of the country we passed through, and all manner of smaller conveniences in the way of racks, pockets, etc in the padding and upholstery.

(b)(continued). It was in this manner we traversed the country and a very pleasant way, too, though the waits at the hostels for changing of horses were apt to be tedious. Though when my father had the arrangement of these details a messenger was often sent before us to make sure of the fresh animals being ready.

(c) The last scene I shall describe is very different.

My first 'real' view of the Alps.

We were travelling abroad, my parents and I and so far I had seen nothing which had aroused my vehement admiration; so that the sensation was all the more intense when, the carriage lazily wending its way up the mountain road to our hostel, I, who had nearly fallen asleep, started up and gazed before me, entranced. Below, on the plains, I suppose I had been too occupied or too weary, probably both, to notice the scenery; but up here, on the mountain road, winding along the border of a precipice the full beauty of the scene burst upon me.

Snow covered slopes touched with fire, the intense blue of the Alpine sky, and the summit of Mont Blanc towering over all. Scenery I knew I never could forget - scenery all should see.

V. 2.

Temperance as a general principle.

The subject considered as a whole is of immense importance. Partly, I think, because temperance is so often applied to ^{abstinence from} excess of drink, and is not sufficiently ~~at~~ thought of in connection with other matters. Temperance in life is a big subject and one which must necessarily have many side issues and channels.

As a principle one may take the following example to illustrate the point in hand;

A man, ^{provided} ~~endowed~~ with all good gifts - money, position, good looks, a charming disposition, and above all a heart - is left alone to make his own path through the world.

Now that man will find it the most difficult thing in the world to make temperance his ruling principle.

Everywhere he goes he will be beset by beggars - and false friends who will 'obsequiously' offer to help him spend his fortune and

advise his goings out and comings in.

If that man can resist all this and keep

'a virgin heart in work and will'

he will have gained temperance for his ruling quality. If not.....
So temperance should be thought of more as a (ruling) general principle than as a quality only one among many; for it concerns all virtues and is ready to correct all vices.

V. 1. Some conflicting theories as to the nature of the State.

The nature of the State today is rather like a very involved mathematical problem. Even when one has worked out a possible solution one cannot find a suitable method of proving the result and the book of answers has been mislaid.

One man will come forward with an ingeniously evolved idea which ~~he~~ he thinks can set all doubt on the matter at rest.

'Look,' he says, 'This is what is needed to put things straight. The England of today is a tangled web - I can ~~it~~ put the cords right and undo the knots - Do this and that;' and somehow a good many people follow his arguments and uphold his judgement.

But then another man comes along and puts an even more convincing theory before them, ~~and~~ he gains more followers than the first man. So it goes on - and the nature of the state is a very sad and troubled kind. Pulled, and twisted, painted and camouflaged there is little left of what it originally was - before men became aware there ^{were} ~~was~~ such things as theories, and realised that the nature of the state existed.

December 14th 1921.

Geography.

Eleanor P. Hughes.

The Rise of the British Navy.

- v. 1. It is to the Elizabethan age that we owe the real rise of our Navy, though the days of Henry VIII afford evidence of waking interest in the matter. How curious it is to look back on ~~those~~ that period and see the wooden ships, the rough, undisciplined seamen, and the weak cannon that were then such marvels of Naval progress in English eyes. How curious too, to note the slumbering passion for adventure aroused and never laid to rest again!

"Ye mariners of England

Who guard our native seas

Whose flag has braved - a thousand years

The battle and the breeze."

A thousand years! during those centuries our Navy has worked & waited, toiled and perfected till today when we are acknowledged to be the greatest sea power in the world.

And it is those 'ancient mariners' to whom we should raise our hats and reverence with all homage. It is not always the gallant officers, the Admirals and the Captains, to whom the glory should be given - the sturdy sailors - who obey orders, & stick together, and are often as brave and courageous and who push^{ed} on the rise of the Navy till it became what it is now.

2. The five continents, Europe, Africa, Asia, America, and Australia compose the land ^{portion} of our globe, and in them an infinite variety of shapes and ~~surf~~ surface ~~is~~ to be found.

In Europe there are no remarkable mountain ranges, beyond the Pyrenees as are found in Asia though one finds one ~~or~~ or two remarkable summits such as Snowdon and the Scotch Bens, Etna, & Vesuvius.

But passing eastward over Asia the Ural Mountains stretching almost due North and South claim attention, and farther on the ~~Himalayas~~ Himalayas; Mount Everest, their highest peak, and the broken jagged ~~to~~ land farther North afford a contrast.

In Africa, the deserts lie and great hills are unknown and Australia, too, cannot show more than a few moderate heights - It is

chiefly rich pasture and plains of rolling grass land.

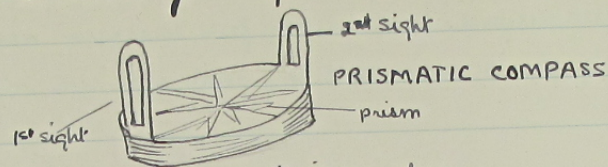
But America - Land of the Rockies and the wild mountain passes - the miles-long Andes in the Southern continent and the wonderful scenery of the North!

Here indeed Nature has played freaks with the scenery of country and produces marvels of beauty and curiosity.

The crevasses and the split gorges, the forests and the strange Indian haunts make this continent truly marvellous.

4 For surveying in a simple manner all that is needed is a prismatic compass or a plane table.

The former is an ordinary compass with two sights in addition. (Fig 1.)



and a prism instead of an ordinary glass.

The method ^{in which} it is used is as follows;

By looking through the first sight and therefore through the second as well, for they are opposite one another, an object is fixed upon. (The compass should, of course, be held perfectly level.) By means of the prism the reading on the compass card is reflected to the surveyor's eye and he notes that the object lies so many degrees to the right or to the left of the compass north.

Noting on his paper this fact he proceeds to another point and carries out the same operation. From these observations it is no difficult matter to draw the map required.

(6) By planting the stick upright and at right angles to the ground one gets the top of the stick on a level with one's eye. (It will probably be necessary to kneel down.)

Then by holding the footrule vertically, as a continuation of the stick the height of the tree is found, by adding the height ascertained by the footrule to the number of feet the stick represents.

December 14th 1921.Geology.
Energy.

Gleanor P. Hughes.

2.

Energy is capacity for doing work.

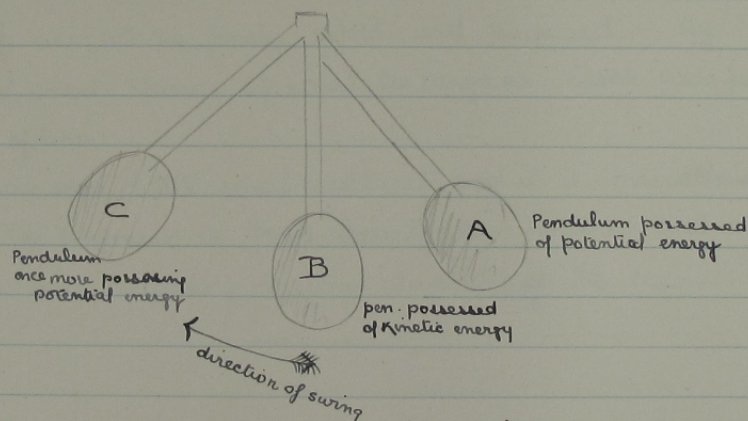
And there are different ways in which work is done. By force, by natural power, or by strain.

So perhaps it is best to mention the two different kinds of energy at once.

They are Potential energy and Kinetic energy.

The last named derives its title from the word (kineo, I move) for it is the energy of motion. Examples may be found in a flying bullet or a hail stone whizzing through space.

And the former species, or Potential energy is that which receives its property from pressure or strain and sudden release. An illustration (a very common one it is true) is that of a clock pendulum. (See Fig 1)



At A the pendulum by the motion of the ~~se~~ clock is strained by potential energy - released it flies forward momentarily possessed of kinetic energy (B). Then, rising on the farther side it is once more gradually worked by potential energy until it is released once more. (C.)

There are many more examples. A driven golf ball, a piston worked by machinery - all point out the different species of energy.

But it is useful to remember that there are just these two main divisions Potential and Kinetic energy.

1.

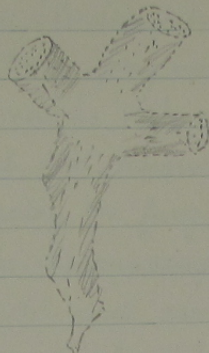
'I did not dig it from the ground or pluck it from a tree,

But curious insects made it, who lived in the sea' - (Ryhme.)

The wonderful forests of the sea of branched coral, rose, white, or yellow, are made by minute insects, perfected by ~~ten~~ the motion of the waves.

Geology.

worn away, or snapped off and carried in fragments to the shore.



SPRAY OF CORAL

On examining a spray of coral (as above,) one observes that it is punctured by numerous minute holes and tubes. These are made for tunnels and passages for the use of the tiny insects who work in it. A portion of the coral is often much coarser than the rest, owing to the fact that the materials are not so finely sifted and prepared. By boring & building of great sprays of coral as large as trees are formed in the course of time.

Everyone has seen little coral necklaces and it is marvellous that each tiny 'twig' or fragment so ~~beats~~ beautifully finished and cut should have been made originally by tiny dwellers of the sea.

isp 18 cm 61 8.

December 15th 1921.

Botany.

Gleanor P. Hughes.

1. Some inter-relations of plants and animals.

The inter-relations of plants and animals form a complicated study, and it is exceedingly interesting to follow out the intricate path of this subject. Animals, as we know, prey upon one another in some cases, but for the most part content themselves with using the vegetable world as a source of nutrition. When the animal dies, however, and falls into decay the lower forms of plant life, noticeably ~~the~~ fungi and parasites of various kinds, fasten themselves to the decomposing matter and absorb their food from it.

Again, they too, die and compose valuable rotting vegetable manure for the higher classes of plants, ~~life~~ which, in their turn are used by the animal kingdom, and so the ever-changing whirl of life goes on.

As regarding another kind of relation between the two great divisions; Many plants affect the habits and propensities of their superior fellow creatures. All have heard or perhaps seen the Sundews and orchids catching flies and minute insects, masticating and finally swallowing the tiny things, helpless ^{as} in the jaws of a monster; all, too, have seen how a parasite attacking a cereal will eventually kill it if allowed its way, and witnessed the extraordinarily destructive powers of lindweeds and ivy.

The zoophytes, the lowest form of a vegetable life ^{are} said to be on the borderland between the animal & vegetable worlds; for, affecting the habits of a plant ^{they} ~~it~~ ^{are} ~~is~~ possessed of habits which relegate ^{them} ~~it~~ to the other division of ~~the~~ life. ~~the~~

2. For some time past I have been collecting and pressing wild flowers and fungi spores, and have mounted and named them all now. The flowers I pressed between blotting paper ~~and~~ as rapidly as possible, ~~and~~ to preserve the colour, and when they were absolutely dry I prepared to mount them.

It is curious the way ^{some} flowers lose their colour in pressing. Blue flowers keep their original colouring remarkably well and my specimens of milkwort, nettle-leaved bell-flower, and germander speedwell though gathered nearly two years ago retain their wonderful blues

was sent to a monastery.

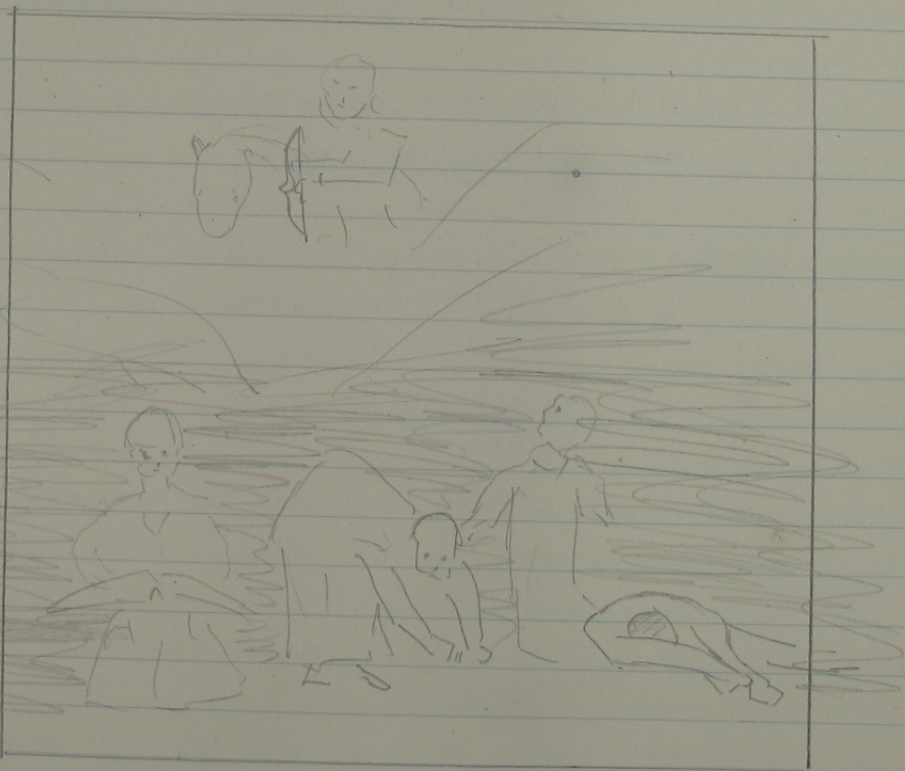
But it was no use - the talent was there and could not be suppressed and the Prior sent him out to become a painter.

The Medici employed him and it was to them he was always writing for money. 'I have not a farthing in the world, and have been three day without gilding!' and his charming ways brought him numerous friends.

He even forged a cheque for 40 florins at one time and was deprived of his habit and forbidden to call himself a monk.

His lovable disposition carried him gaily through life, though he was often without a penny, always in debt, and ^{had} a wonderful power of excusing himself.

His paintings were many and various - His style clean and simple and the perspective good. But as he was always in a hurry he was apt to be careless and so there is an extraordinary contrast between ^{some of} his pictures. He died between 1460 - 70, lamented by all who knew him; Fra Filippo Lippi, the gay monk who became a great artist.



December 16th 1921.

Arithmetic.

Eleanor. P. Hughes.

1. The True Present worth of £100 due in 41 months = £4
 " " " " " £85.5.0 " " " " = $\frac{85\frac{1}{4}}{100} \times 100 \times 4$
 " " " " " 85.5.0 = $\frac{400}{100} \times 85\frac{1}{4}$
 $\frac{100}{400} \times \frac{341}{4} = \underline{\underline{£ 34.100.0.0. = True Present Worth = Answer.}}$

2. The Simple Interest on £100 = £2½ and amounts to that in 1 yr
 " " " " £236-6-8 £17.4.6 " " " " ?

Reduce £17. 4. 6 to shillings
 = $\frac{20}{344/6}$

Also Reduce £2. 10. 0 to shillings
 $\frac{20}{50/-}$

Divide 344/- by 50/- = 6... 44 over.

∴ The Simple Int. on £236. 6. 8 will amt to £17. 4. 6 in
6 yrs. 10 months 2 weeks = Answer.

3. Investment at £100 brings in £10 (+ 1/8) = £10 1/8
 " " 211 5/8 " " $\frac{211\frac{5}{8}}{100} \times 10\frac{1}{8}$

$$\frac{1698}{800} \times \frac{81}{8} = \frac{137123}{6400} = £21. 8. 0$$

and investment at £100 brings in £2 (+ 1/8) = 2 1/8

$$\frac{42\frac{1}{4}}{100} \times 2\frac{1}{8} =$$

$$\frac{369}{400} \times \frac{17}{8} = \frac{6263}{3200} = £1. 13. 0.$$

Investment of 10% at 211 5/8 is the better = Answer.

December 16th 1921.

French.

Eleanor P. Hughes.

2. Un jour, un petit garçon il entre un magasin des joujoux. Le avec un sourire amiable inquirat; 'Qu'est ce vous voulez?' Gaston, montrait sa reticule plein d'argent, repondit; 'Qu'est ce qu'avez vous?' 'Des joli, des grands tomtoms, des epées splendides, des rifles magnifiques,' repondit le propriétaire. 'Vous avez de choisir.' Gaston examinat un nombre de choses, puis il inquirat; 'Oh non, monseieur, nous avons, en addition, un quantite' de ~~des~~ des belles raquettes et un asortment plus grand des (tops.) Gaston commençat d'examiner un chose et l'autre, mais il trouvat tous les choses trop chers. Il aimat beaucoup de joujoux splendides, mais il ^{le} trouvat impossible d'achter si beaucoup d'argent. Ayant (prie) en vain pendant un quart d'heure a persuader son jeune client, le propriétaire perd son patience et inquirat ~~et~~ au petit méchant ^{a faire} de choisir viteement, parce qu'il y a d l'autre client attendat. Puis Gaston inquirat 'Avez vous des marbles?' 'mais oui,' repondit l'homme. 'Eh bien, ~~des~~ marbles pour un sou.'

3. Le gendre de M. Poirier.

- Le gendre de M. Poirier, un rielle negociateur, est un jeune homme qui a marié une jeune pensionnaire, mais il ne l'aime pas. Elle est la fille de M. Poirier. Le Duc de Montmeyeran un ami de Gaston retourne du guerre et il visitat son camarade a l'hotel de M. Poirier. La conte recontrat de Gaston (learning) a aimer sa femme quand elle as lui puni en l'exposant au pere. Quand il repent il dit qu'il enlistat avec le Duc, mais Madame la Marquise, sa femme le prie qu'il ne sort pas. Puis, Gaston inquirat ~~a son pere~~ ^{a son pere} P le pere de la femme qu'il le donnat un place dans son bureau. Il ne le depise plus, il a aime sa femme.
1. #. Quand un adjectif agreé avec la verbe il faut necessaire que l'adjectif aurait le même nombre et le même personne. que la noun et la verbe. (l'exemple premier; Il dit generalment, (l'adjectif

agréé avec la verbe et la noun.)

des participles serait ^{aux} subjecté à ~~les~~ mêmes conditions. Quand ~~la~~ le
sujet est masculine le participe passé agréé. (Exemple seconde
Ils ~~arr~~ étaient arrivés - le mot arrivé est masculin et plural.)

Il est le même chose avec regard au ~~pas~~ participe présent.

Il faut nécessaire qu'il agréé avec la noun et la verbe.

Class III age 13.2
V.H.W (13.2 III)

Geography.

Veronica H. Williams

13² June III

Q Describe a visit to London.

A. "Well dears, have you been good this week?" We were not at all nervous as to Miss Smith's, our governess, answer, as we had been "extra specially" good this week in view of a promised excursion to London. Miss Smith duly praised our behavior, smiles, congratulations, gettings-ready, hurry, & we were in the train on the way to London..... Oh! what crowds there are, & how people jostle! a scramble for a bus & we are on our way to visit the Tower of London. What great thick stone walls it has. So safe & strong, & rather frightening when you think of being shut up inside. We went up one of the narrow winding stairs & visited several of the stone chambers. Here is one where the poor, young Lord Greytoble has scratched on the walls of his cell "Jane, Jane" the name of his queenly sweetheart. It would take too long to describe all the many things we saw there, amongst which was the Historical Traitors Gate that the young Princess Elizabeth was so indignant at having to enter from, "I am no traitor" she cried, but the will of stubborn Mary had to be, then Here lands as true a subject as ever put foot

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i9p2cmellel
464 2
141 age 13.2 Geography. ~~Veronica the Williams~~

on British soil" Elizabeth said defiantly, when she found it was useless to resist. She was one of many, but a fortunate one. Many ^{have} gone in, but few, very few, have come out again.

Where shall we go next asked someone, "To the British Museum" we cried. The things that interested us most were in the East of the three last Egyptian rooms on the ground floor. We were thrilled with the mummies. One, belonging to a little girl has a wreath on it. Perhaps the last thing put on by her sorrowing mother. Many, many others, great men, children, princes, princesses. No room for me to describe them all. The photographs too.

The huge pyramids at least 60 ft higher than St Pauls Cathedral. The huge, mammoth tombs of the Egyptian kings. We can imagine hundreds of, hot, sweating Egyptian men, working to complete the tomb that their king should rest in undisturbed (as they thought) for all time. Then we went home again with more knowledge than we started out with. "Next time" mother promised "we will go to Westminster".

2. Give a map of Cornwall. What do you know of its moors, its mines, its fisheries

474

29 p 3 cm 166

15 p. 10 m. 10, Y

N.S.

N.S. (15th V)

2. Give some idea of the general relief of the continents.

The Earth's surface rises above the sea in a kind of semicircular juttings from a ring around the North Pole. It will be noticed that the northern boundaries of Europe, Asia & America almost touch & form a ring. From this ring they just downwards going towards a point in a NW and SE direction.

If the shapes of the three different partitions of the earth were compared, they would be found to be fairly alike. Taking North & South America as the pattern, for it is far the most regular, & we should find that its general tendency is to have a long coast line in the north & to taper down eventually to a point in S South America. Comparing this with Europe & Asia we find the same tendency, & the similarity between Africa & S America is very great.

Now, to turn to the mountains & plains. The striking mountain feature of N & S America, is the high range running from N to South not far from the Western coast line, from the Rocky Mountains in the north to the Alleghenies in the South.

Nearly every country or continent has some long system of mountains dividing it almost into two parts, & not necessary two equal parts either.

In Europe the ranges run from the Caucasus to through Southern Germany & Austria, through Switzerland where the mountains are at their highest, down the long peninsula of Italy till they plunge, eventually into the sea.

29 p 6 cm 161

29 p 4 cm 161

475

In Asia, they start in the North East, near Korea, and run in a south-western direction till the various smaller ranges collect in a vast knot in Thibet. From there the system runs both south & west, spreading itself out in northern India & running in a systematic chain towards Persia. Even small Scandinavia has the same kind of mountain system, on a small scale. To return again to America, we find that this

Western range is not the only one; on the East coast too there is no inconsiderable system in which the Blue Mountains take their part. A parallel in Europe is not difficult to find. The Northern boundary of the "Continent," as we are accustomed to call it, has, also, a range of mountains very near its coast line. The Ardennes of France & Belgium, the mountains of Northern Germany & Denmark, all form part of the range, which also repeats itself even in small countries, such as Italy, for example.

Between these two systems of mountains, & in both continents, lie broad & fertile plains watered by the rivers which found their birth in the high mountains around. The necessity of these ranges may be seen best by their absence in Africa, & the Sandy Desert which is useless for their want.

Not only, do these mountains give rivers to the plains below, but they soften the climates & baulk the winds. Closely akin in their work to these ranges are the table lands, the chief of which are situated in Thibet & Switzerland. They are, in truth "plains on a high level" although in some places such as Scotland, they have been cut up by river gorges as to be almost unrecognisable as tablelands.

class I

Geography.History

15. June 1

N.S. (15.V)

Q Describe the rise of British Navy.

A Great Britain has always been famous for her navy, & for many centuries had held supremacy over the high seas. The gradual acquisition of this great source of power, is, in itself, an interesting study. When the kings of England first realized the necessity of ships to guard the island on which we live, the plan they fought upon was this: several notified seaport towns were to provide ships & sailors to man them, in return for certain municipal privileges. These ports were called the Cinque Ports, but when the ships were so enlarged as to become too big or too many for the Cinque Ports, others, among which were Hythe & Folkestone, were added acquiring the term of Limbs.

The first really great triumph of our sea power in a fight, was in that unexpected victory over the Armada in Elizabeth's reign, & since that hour, our naval prestige has been rapidly on the increase.

Nelson's fleet was well manned & well equipped & once again a shattering defeat was inflicted on a foreign foe. Reforms have been carried out, & although the navy is largely controlled by the Board of Admiralty the Captain of a ship has a great responsibility placed upon, & to see how bravely this charge is carried, we have only to look back upon the affair of the Chesapeake.

3. Give some account of the recent ascent of Mt Everest.

Not long ago, an attempt was made to ascend Mt Everest, & to discover for science several facts which she still lacks. The explorers arrived at a certain height, & it is said discovered foot-marks in the snow. Their guide told them of a local superstition centred round an aboriginal people. This, however, may be a fallacy, for, as yet, no proof of their existence has been discovered.

The last part of the ascent is to be made by six explorers only, accompanied by their guides & porters, & it is thought that the climate of early spring will be more favourable than that which drove them back in their last attempt. No doubt, the use of wireless will facilitate the movements of the expedition to no small extent.

No landing grounds for aeroplanes have yet been found, but should such a tract be discovered, the question of stores would no doubt lose some of its difficulties, & the dread of starvation would never be present.

we can now go to the tower of ...

IA " Geography
A.B. (11 1/2 A).

Q Describe a visit to London.

A London is a county in itself it contains millions of inhabitants but a lot of the people we see come ~~for~~ from North, South, East, & West of this great city.

There is a country man bewildered, & does not know his place until he is pushed into it, there are sign posts, keep to the right, or perhaps to the ~~left~~ left, a very busy part of London is Cheapside.

St Paul's is in the city & we see its great round dome, unlike any other English building, the old St Paul's was burnt in the terrible fire of 1666, & then Sir Christopher Wren who was an architect, was given the work of rebuilding it, & he made it as we now see it, he had been to Italy & had partly copied some of the domes there.

Now we pass from the city & go to where Westminster stands, it is a very different kind of architecture with thin spires. All our kings & queens are buried here, with one exception, the boy king Edward VI, at one time it was situated on a little isle called Thorney Isle & surrounded by beautiful forests but all these were cut down, we can walk up its broad aisle & see the graves of many kings & queens, & then side by side our two heroes, Nelson, & Wellington. Pitt & Fox are also side by side, they were enemies in Parliament. All the poets have a corner to themselves & many of our great poets were buried here.

Now we can go & see the Mint, where all the money is made in this street we can hardly see the tops of the houses, the walls are so high, this is where the merchants store their goods, people are crying for room, but there is no room everything is packed so full.

We can now go to the Tower of London, the place where Royal

19 P 7 encl. 1.
460

A.B. 11 1/2 " " " "

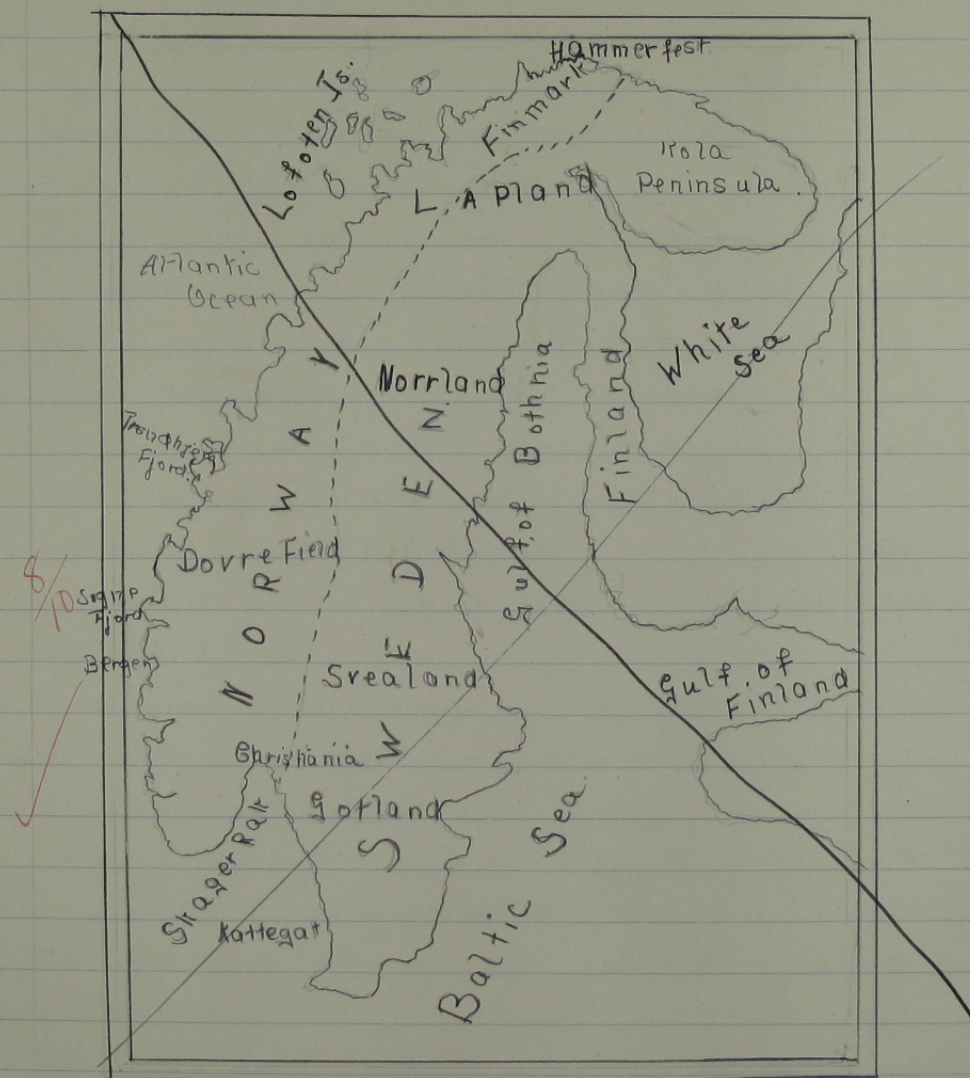
~~Elementary~~

~~Geography~~

D.B. (B. III) (elementary school)

- Q Give a map of Scandinavia, putting in the chief physical features, and write a short account of the scenery.

Between what parallels do Norway and Sweden lie?



(Map of Scandinavia ^{film} ~~omitted~~)

back

19p 9 cm 161

a. The Scenery.

The scenery or natural features of Scandinavia are very picturesque.

The large ocean-washed peninsula of Scandinavia includes the two kingdoms of Norway and Sweden, its size being rather more than five times that of England.

Norway is covered with mountains which abut upon the sea, and the narrow valleys broken in by the ocean, become the curious inlets called fjords which score the coast.

The northern parts of the range are known as the Kiölen Field. These northern plateaus are covered with wide snow-fields, from which glaciers descend to the edge of the sea. Sulitelma is the highest summit north of 63° north latitude. South is the range known as Norska or Dovre Field. Here are the snow fields of Fustedal, and the highest summits are Galdhøppig and Snæhatten.

The lakes of Norway are quite innumerable. Sweden has but few high mountains, where the land gradually rises from the Gulf of Bothnia to the Kiölen Mountains. The three great lakes Wener, Maelar and Hielmar occupy the lowest parts of Sweden. Like Norway Sweden abounds in lakes, some of them being more like inland seas for size. The largest of these, lake Wener, as large as Northumberland, is emptied into

the Wener, the water of which was derived by the rivers of Scandinavia. navigation, but are used for the forest to the fjords. The rivers of Sweden flow into the Baltic.

is Baint

472 29 p 10 cm 161

Form III

Geography.

the Kattegat by the Göta a river famous for its picturesque rapids and weirs.

The Wener, the Wetter and the River Göta have been united by the Göta Canal which was designed by Telford the English Engineer. The rivers of Scandinavia are like the lakes innumerable.

They are useless for navigation, but are used for floating timber from the forests to the fjord. The Elanmen is the largest of the southern rivers.

The rivers of Sweden flow over a longer slope of land than those of Norway.

The Angerman or Elo is the largest, it flows into the Gulf of Bothnia as do the Dal, Alnea, Ritea, Tulea, and Tornea.

Norway and Sweden lie between the parallels of 75 and 55. X

25/30
3. Give an account of one of the "Famous Corsairs of France"

Jean Bart of Dunkirk.

The first of the famous corsair captains to measure his craft and skill against the might of England was Jean Bart of Dunkirk. He was born in 1650. His grand-fathers on both sides had been corsairs.

before him. The little boy heard many a tale of their brave deeds and resolved to follow in their steps.

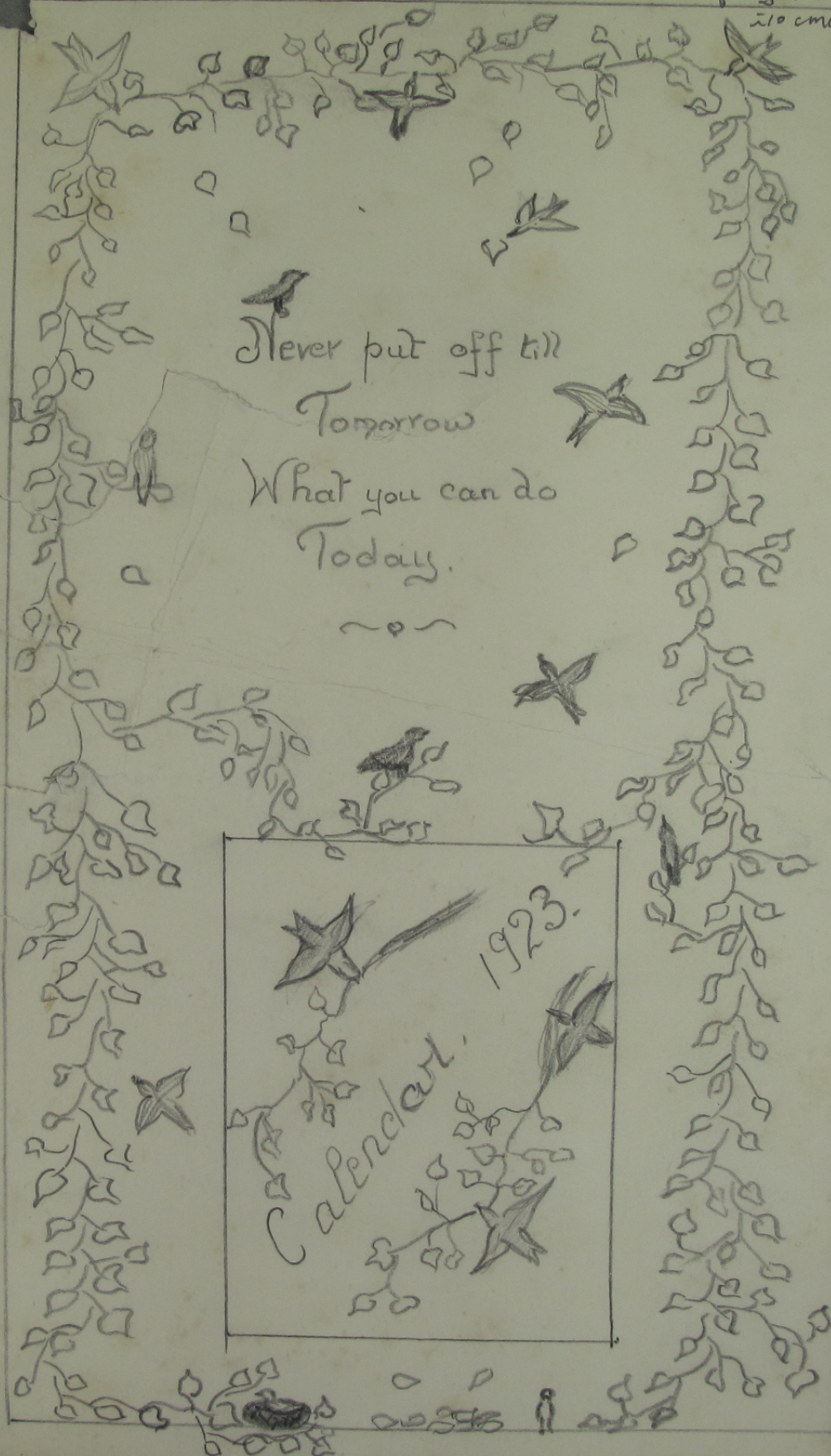
His mother tried hard to win him to some other way of life, but she failed, and before he was 12 Jean Bart had embarked on a Dunkirk smuggler, to take his first lessons in the craft of seamanship. When only 15 he became mate of his vessel. A little later chance enabled him to do service to the famous Dutch Admiral De Ruyter, and he took part as a volunteer on his flagship in the battle of the 20th of July 1666. For the next five years Jean Bart served in the Dutch Navy.

But in 1672 France declared war on the Dutch, and he came back to serve his country.

He was given command of his first ship in 1674, it carried but two guns and a crew of 36, and with her he cruised against the Dutch traders in the North Sea and the Channel, and took six prizes in as many months.

In 1676 he attacked a fleet of fishing smacks, convoyed by a Dutch frigate, that carried 32 guns to his 24, and after a fierce action he took her and brought her and the smacks as prizes to Dunkirk. Other gallant deeds he did, still against the Dutch, until his fame reached the King's ears, and he received a commission as a lieutenant in the Navy. In 1689 he

Design for the border of a calendar flying birds & fungi, in situ.
210 cm/61



Natural History

2111010161 437

B.C. (12.IA)

B.C. 7/2. 19.

3 What do you know about the woodpecker? or
Q tell about that old "Huggen" and some of his
relations

A When Tommy Smith was walking through the woods
he saw a hole in a tree, and something bright
inside it which said "Hello!" Tommy Smith
saw that it was a woodpecker. Hello said
Tommy Smith, and the woodpecker said "Hello" again.
It was a fairly big bird Tommy Smith thought
and it was called the green woodpecker and
they live in holes in the trees, at least they
nest there. Then the woodpecker said, "Would
you like to ask me questions?" Tommy Smith
said "I want to know how you get insects."
Then the woodpecker went down the tree
round & round it and said "Would you like to
see my lovely tongue?" Presently she came
upon a caterpillar, but came her tongue & took
it so it was dead in a second so Tommy
Smith thought. Then the woodpecker said "Did
you see my tongue, isn't it wonderful?" Yes it is
really," said Tommy Smith. "I thought you would
say that said the woodpecker, everybody says
I have a wonderful tongue, at least I think they
do," And I think they ought to put in Tommy
Smith. "Yes so do I," said the woodpecker, they
should say so. "But Mr Woodpecker, I'd like to
see how you feed your children."

Oh is that all" said another voice, which
of course was Mrs Woodpecker. "I will soon show
you how." There was an ants nest quite near
so Mrs Woodpecker said, "I'll soon show you. So
she went to the ants nest and began burrowing

with her bill. When she came to the ants
she swallowed some, and then flew away to her
babies. When then she reached the hole where
her nest was she brought up from her inside
the ants and gave them to her children.

Then she said, "That is how I feed my children
now do you see?" said the woodpecker. Yes I
kelly to said Tommy. So then the two
woodpeckers flew away.

Hygiene & Physiology.

430

A.B. (13³/₄ 1V)

1. Describe & illustrate the processes of digestion

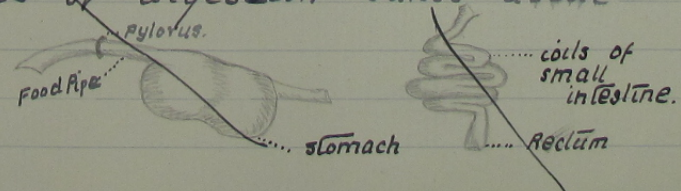
A.B. 15³/₄ 18

A. When we swallow our food it passes through the down the throat into the food pipe and thence into the stomach, From there it passes on through the rest of the food pipe and into the rectum.

The food pipe is very long, but after the stomach it coils round and round. This, of course, makes the process of digestion very slow. The food pipe is lined with a velvety membrane, and myriads of tiny blood vessels. As the food passes down it, it (the food) gets condensed and churned up into a thick paste which is termed "chyme."

It enters the stomach, where it undergoes another churning process. On passing out of the stomach it has to pass through a small ring of muscle called the "pylorus" which prevents any lumps or hard substances getting through. The food is now called "chyle" As it goes on through the rest of the food pipe, the blood vessels, and tiny cells, absorb into themselves, all that is good in the food, and allow the rest to pass on. At length it reaches the rectum where it waits till it is disposed of. The process of digestion takes about 3 hours.

(diagram)
Sim



E. H. 11/10/44 8.
 16.7.44 431

to this day. Pinks and reds are disappointing and I cannot ^{name} keep one specimen I have that could be called either shade!

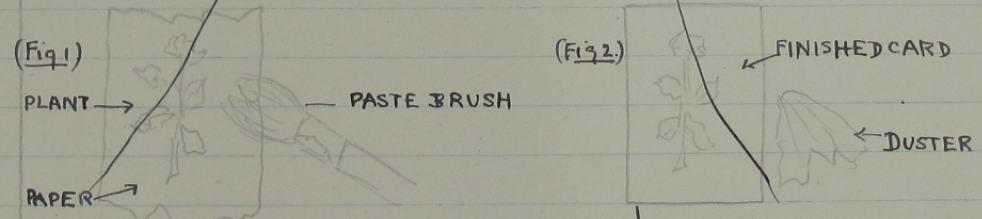
Yellow flowers, vetches, buttercups, and the celandines are splendid and so are some mauves and purples.

But orchids! Who would dream that those exquisite wind-blown things could look so terrible! Brown, withered, shrivelled! The only good point is that they have kept their shape well, and most of the characteristics are still ^{to be observed}.

Having pressed the flowers I come to mounting them. On a sheet of paper the plant is laid, and, with a full brush of 'Stickphast' a white photographic paste, I covered the whole thing.

Before this the plant must be carefully arranged so that it appears as it would be growing naturally. Leaves must be spread out and smoothed, tendrils, (if any) adjusted and the petals smoothed & put straight.

Then, the whole ~~th~~ plant is lifted and deposited on a white card (I have found fashion plate boards excellent), Superflow paste wiped away and the whole put ^{aside} to dry.



(Glue should never be used. It destroys the plants.)

Pinnate leaves such as the umbelliferous tribe ~~possess~~ can be arranged with a pin. But the great thing is to make the flowers look natural and as if they ~~were~~ are growing.

On large boards one can mount five or six separate species and print the names ^{8. H. (16. V.)} beside each one.

(2) Plants are divided into various classes.

Annuals, or those which spring from seed, and after rapid growth, flower and die in one year's time. (Poppies, muscivore.)

Biennials, or those which, during their first year only produce a low tuft of leaves and flower the following year. (Mullein.)

And perennials, which flower for many years without dying though they frequently assume a dormant condition during the winter. (roses, bulbs)
For annuals it is necessary they should die off after their flowering, because, having expended all their strength on rapid growth & bud production they are exhausted and must needs expire.

Biennials and perennials, however, gather ~~st~~ food and internal strength during the cold months when ^{the} sap runs slowly and life is at its lowest ebb; so they accumulate nourishment to be prepared for the next year's work.

(6) Plants are known to effect many habits of growth and the two most opposite manners are those of creeping & erect ^{specimens}.

Erect the latter class are independent and by rigidity or general firmness attain an upward aspect requiring no other help.

Creeping plant, on the other hand, need support which they will obtain by clinging or twining themselves round their stronger companions or a suitable ~~at~~ object.

Further kinds prostrate their ^{main stalk} stems on the ground and only raise short stems at intervals bearing the flower heads.

Hops, with the twining, and peas ~~on~~ with the clinging growth afford examples of those ~~at~~ creeping plants which rear themselves upward by clinging to other objects.

Try and all ^{kind} ~~many~~ of creepers show this habit, too.

Erect plants, therefore do not require support to help them to live and produce flowers and seeds, but their lesser, clinging brethren must needs hang for ~~set~~ their lives on the charity of another species.

S.P.H. (16. IV.)

211 p 6 cm 61

434

Blanco P. Hughes.

April 6 from V

December 15th 1921.

Astronomy.

2.

Solar Eclipse in Spain, May 28th 1900.

The observer, M. Flammarion, the French astronomer was in Spain expressly for the purpose of witnessing this phenomenon.

He says that at the hour forecasted the sun was shining brightly. All was gay and living - the birds and animals busy and occupied, never suspecting the dread change about to take place. It was a hot sultry day.

Then a little shadow appeared on a corner of the sun's bright face - this shadow grew and grew gradually spreading itself entirely over the sun's face surface.

All became dark and cold... the birds flew home to their nests the animals to their habitations... there was a great hush... as of every one holding their breath....

Where was the sun? Could that black disk, the flame tongues surrounding it like some awful halo be the great lamp momentarily hidden from sight? Should we ever see the beautiful warm light again?

People were, at the suggestion of the astronomer gazing at the strange spectacle through smoked glass. The thermometers dropped suddenly, balloons came out... and experiments with coloured cards we carried out regarding the rainbow colours and solar effects.

At last the tense hush was broken... the dark intruder slid away and the great sun was once more king of the sky - life awoke and all was as it had been before the shadow came.

2 We have learnt by observances to discover somewhat of the substance of the moon and the other heavenly bodies; but is it possible to find out likewise the substances present in the sun?

The answer is 'yes', to a certain extent.

During ^{total} eclipses is one valuable opportunity when the full radiance is not directed on our globe and during lunar eclipses when the it is even more possible.

Sun spots and their size and general aspect can be seen and by experiments astronomers can direct telescopes on the sun to find out approximately the depth of the solar world.

Form VI

ques. II
ans.

N.C. (18 VI)

(1)

21 p 7 cm 16 44

(Form VI 18)

Astronomy

Allo Cunningham

Give some account, with a diagram, of the Leonids.
Every thirty-three years a great shower of meteors takes place in November, these are called the Leonids because they proceed from the constellation of Leo, the Lion, this is one of the greatest showers, & sometimes takes two years to cross the Earth's orbit, this was the case in 1866, when it took five hours to cross the sky during one night, at this time it happened that the old world saw them, but the following year 1867 the New world saw them.

Each time the shower crosses our track some of the most meteors enter our atmosphere & stay with us, so that the showers will become less brilliant. These meteors have a great velocity which causes them to become white hot due to the friction, in spite of their heat many of them do not weigh a single grain.

The shower appears to radiate from one point called the radiant, but this is not really the case it is only the sky which makes it seem that way.

The efficiency of the friction is proportional to the square of the velocity.

In the Leonids are occasionally seen fireballs,

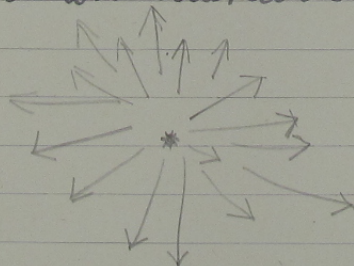
Form VIAstronomy. N. Cuninghame.

these appear like a streak of lightning & as quickly disappear, occasionally fragments break away from the meteors, & these form shooting stars.

ques. II Describe the eclipse of the moon that occurred this term.

ans. A The eclipse of the moon ^{partial} was not seen here nearly so well as the eclipse of the sun on April 9th. At first the shadow began on the S.W. side, the sky was then quite clear, but as the moon's face became less visible the sky was covered with broken clouds, and the moon was only seen occasionally.

Luckily there was a fairly large gap in the clouds whilst the eclipse was at its greatest, and then only the ^{bottom} ~~latter~~ half of the moon was seen in the form of a broad crescent. This eclipse lasted from 4 to nine to eleven p.m. At other places it was observed more clearly. It was occurred on October 16th. (diagram here)



Diag. showing radiant
of Leonids.

Astronomy (continued)

C.H. (14.12. VI)

11/19 cmc 161

429

Elizabeth Howard

17.12.1961

It has been found, by a search in the old records, that Neptune has been observed several times before, but its identity had never been suspected before, as it looked, even to the most powerful telescopes like a star of about the sixth magnitude.

Q What is the nature of a comet? Describe two famous comets.

A The comets are the class of heavenly bodies of which least is known: they belong to our system & are dependent on the sun's attraction: there are two kinds those which are periodic, that is to say return in a fixed number of years, & those which are passing visitors.

In the early days comets were regarded with a superstitious dread their coming was thought to presage terrible calamities but it has been known otherwise for ages: little is known either concerning their movements or their conditions: it is known that the periodic comets move in a very elongated ellipse, the movements of the others are unknown: neither can the weight of a comet be gauged by any known measure the comets bring so very light in comparison to the other celestial bodies: a certain amount is known of comets by means of spectrum analysis, the spectrum goes from red to violet, & contains many lines the same as those of the sun: comets are in a state of extreme tenuity, in fact they are so very insubstantial that it makes no difference to the stars they pass across, even the brightest part hardly makes any visible difference. Comets are composed of a bright part or ~~nucleus~~ nucleus & generally of a tail but as each comet varies & even the same comet changes from day to day it is impossible to recognize them by their looks, or even describe them.

Some comets have no tail, & some practically none, but every comet that has one always has it facing away from the

sun; as the comet approaches the tail increases in size & splendour, as it recedes the tail also decreases: this is probably on account of the fact that the sun has a repellent influence on the matter which goes to form the tail: There are three different forms of tails, one that is almost straight with the comet, one that curves slightly, & one more so: These are probably nitrogen & hydrocarbon, one comet may have more than one tail, indeed many have been seen with two, some with more. As the comet withdraws from the sun the tail is no longer repelled it therefore ceases, but as the comet can not have sufficient attractive powers this tail is lost, thus after a time all the tail making material of the comet may be lost, & even the whole comet may cease to exist.

The course of a comet may be seriously influenced by the attractive power of the planets it is probably through this power that many of the periodic comets have been caused, by being attracted so markedly that they have gone into an elliptical like form of course.

One of the best known comets is that called Halley's, he did not observe it for the first time, but it was he who found out the nature of its course, & predicted its return in 78 years: as this time drew near his calculations were revised & a margin of a year given for variations, it was at the beginning of this year that it did at last appear, this also shows another triumph of mathematics in astronomy: The comet last appeared in 1910, it is thought to be the same as that in the Boyer's Laboratory.

Encke's comet, is likewise well known, it too is periodic, passing in its course very close to Mercury & extending to about the line of Jupiter's course it repeats this every three years: it was thought it would be possible by means of this to weigh Mercury, but owing to the very light weight of the comet it is most difficult to get anything exact: During several years the course of this comet became more & more rapid & then slowed once more, it is supposed that the comet met the bill of a swarm of meteors in its course, or some such thing invisible to us on the earth.

Special Study This term. 4²³
11/11/11 cmclol

3

Scratching Birds

M.M. (12^{1/2})

Form (V.)

12^{1/2}

The special study, this term: Scratching Birds.

Scratching birds are slightly different in structure to tree birds. Their wings are short and clumsy, their feet longer, and their bills are very weak. All their food is got by scratching for grain and insects in the ground. Their nests are built on the ground, or, more often are just a scrape in the ground, into which eggs are put. Unlike young tree birds, the young scratchers come out fully fledged, and even run about with their mothers. The Partridges young have much to fear from, cats, weasels and stoats, so it is very necessary, to be able to run about. There are scratching birds all over the world, Guinea, Doves in America, Ostriches in Africa, Spurred Peacocks in India, and Quails and Plover from Australia to England. All these birds are coloured like their surroundings, which makes it extremely

In many.

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difficult to see them. Many, including the Ostrich bury their eggs in the sand. Some just lay their eggs and leave them. The Brush Turkey is very curious. It makes a huge heap of rubbish, sometimes 8 ft high and 20 ft long. Then every ten days it lays a huge egg standing upright. Nine or ten are laid, and then she leaves them. The young are fully fledged and look after themselves. This bird lives in Australia.

Pigeons are scratching birds, but higher in the scale. They build nests in the trees; though they are badly made, and often an egg falls out. They are good flyers, especially the Passenger Pigeon which flies for thousands of miles. The young are fed out of the parents mouth, which has two glands, which make the food soft for the young.

~~Doris Braint~~

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15 Form III

Elementary School

~~General Science~~

D.B. (13. III) (Elementary School)

Q How would you recognize a Norman building and describe one.

A. There had been little building in style before William the Conqueror came with Normans. In the century from 1066-1889. most of our beautiful cathedrals and churches were built.

One of the oldest and most perfect examples of the pure Norman may be seen in the beautiful chapel in the Tower of London.

and another in the church of St. Bartholomew in ~~Great~~ at Smithfield near London.

The features are very marked, you could recognize a member of the family anywhere by its, (1) Thick Walls, (2) small windows (3) much decorated. (4) Deeply recessed doors.

(5) Huge piers and pillars, and (6) ~~everywhere~~ the round arch. Arcades are everywhere they cover the walls inside, and out, blind arcades, and narrow interlacing arcades.

For example Skibo castle, Sutherlandshire, it bristles with battlements and loop-holes, and towers, round windows and arcades, and the people adore them. X

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